

**CLEAN VERSION OF THE AMENDED CLAIMS**

1. (Currently Amended) A method of controlling the coupling of multi-platform reservoir and network simulators comprising:
  - synchronizing the advancement through time of the reservoir and network simulators executing on a computer;
  - translating each of a plurality of hydrocarbon fluid streams to a common fluid model of a controller by converting pseudo components of each of the plurality of hydrocarbon fluid streams to a super-set of pseudo-components used in the reservoir and network simulators executing on the computer; and
  - performing a production operation based on simulations of the reservoir and network simulators of a reservoir, the simulations performed using the converted hydrocarbon fluid streams.
2. (Currently Amended) A controller for coupling multi-platform reservoir and network simulators comprising:
  - means for synchronizing the advancement through time of the reservoir and network simulators;
  - means for translating each of a plurality of hydrocarbon fluid streams to a common fluid model of the controller by converting pseudo components of each of the plurality of hydrocarbon fluid streams to a super-set of pseudo-components used in the reservoir and network simulators; and
  - means for performing a production operation based on simulations of the reservoir and network simulators of a reservoir, the simulations performed using the converted hydrocarbon fluid streams.
3. (Currently Amended) The controller of claim 2 additionally comprising means for apportioning global production and injection constraints between simulation tasks of the reservoir and network simulators.
4. (Original) The controller of claim 3 additionally comprising means for balancing reservoir and surface networks.

Application No.: 10/586,283

Docket No.: 09469/161002; 94.0052-US-PCT

5. (Canceled)

497438\_1